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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

HARAN, JOHN T

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 04/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/601,489

Applicant(s)

KUU, WIEN-HAURN

Examiner

John T. Haran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 10-11, and 14-16 is/are rejected.
- 7) ☒ Claim(s) 6-9, 12, 13 and 17-20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 14 is objected to because of the following informalities: the number "20" should not be in the second to last line of the claim. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4, 10 and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of Ellwood et al (U.S. Patent 5,879,810).

The admitted prior art teaches a metal material adhesion method for an optical transceiver module assembly wherein a laser diode protection cover is aligned with a metal shell and adhered together with the use of an epoxy resin (specification, paragraphs 0005-6). The admitted prior art is silent towards the exact alignment process however aligning based on detecting the signal strength to determine a relative position of the metal shell and the laser diode protection cover is taken as being conventional in the method of the admitted prior art.

The admitted prior art is also silent towards coating a primer layer on the metal shell. It is notoriously well known and conventional in the bonding art to increase a bond strength between a metal surface and an epoxy adhesive by priming the metal

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surface, as shown for example by Ellwood (Column 1, lines 25-33; Column 2, lines 26-27 and lines 33-34). Such primers improve the durability of the adhesive bond upon extended exposure to high humidity and high temperatures (Column 1, lines 25-33). One skilled in the art would have readily appreciated utilizing conventional techniques to improve bond strength and durability. It would have been obvious to one of ordinary skill in the art at the time the invention was made to prime the surface of the metal shell in the method of the admitted prior art in order to improve the bond strength and durability as is conventional in the art as shown for example by Ellwood.

Regarding claim 14, Ni-Fe alloy is taken as the conventional material of the laser diode protection cover in the admitted prior art. It is also well known and conventional when bonding two metal surfaces together with a epoxy adhesive to prime both metal surfaces as shown for example in Ellwood (Column 3, lines 11-16). It would have been obvious to apply a primer layer to laser diode protection cover as well as the metal shell in the method of the admitted prior art in order to improve the bond strength and durability as is conventional in the art as shown for example by Ellwood.

Regarding claims 2 and 15, use of an optical fiber for detecting in the alignment process is taken as being conventional in the method of the admitted prior art.

Regarding claim 3 and 4, Ni-Fe alloy and stainless steel are taken as being the conventional materials of the laser diode protection cover and metal shell, respectively, in the method of the admitted prior art.

Regarding claim 10, it is also well known and conventional when bonding two metal surfaces together with a epoxy adhesive to prime both metal surfaces as shown

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for example in Ellwood (Column 3, lines 11-16). It would have been obvious to apply a primer layer to laser diode protection cover as well as in the method of the admitted prior art.

4. Claims 5, 11, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of Ellwood et al (U.S. Patent 5,879,810) as applied to claims 1-4, 10 and 14-15 above, and further in view of Shimizu et al (U.S. Patent 4,762,579).

Regarding claims 5, 11, and 16, there are numerous well known and conventional types of primers to apply to a metal surface including epoxy paints and rubber paints, as shown for example by Shimizu et al (See Column 13, lines 1-16). It would have been within the purview of one skilled in the art to utilize conventional primers and to determine which are most compatible with the materials to be adhered. It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply conventional primers, such as epoxy paint or rubber paint, in the method of the admitted prior art.

***Allowable Subject Matter***

5. Claims 6-9, 12-13 and 17-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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The following is a statement of reasons for the indication of allowable subject matter:

Regarding claims 6 and 17, the prior art of record fails to suggest the claimed metal material adhesion method for an optical receiver module assembly process, particularly a step of utilizing a prefixing material in the claimed manner.

Regarding claims 8, 12, and 19, the prior art of record fails to suggest the claimed metal material adhesion method for an optical receiver module assembly process, particularly a step of utilizing a sealant layer in the claimed manner.

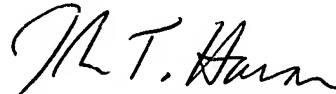
### ***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **John T. Haran** whose telephone number is **(571) 272-1217**. The examiner can normally be reached on M-Th (8 - 5) and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on (571) 272-1156. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John T. Haran  
Examiner  
Art Unit 1733